CLAIMS

1. A method for diagnosing predisposition for obesity in a human individual, comprising
(a) obtaining a biological sample containing at least one nucleic acid molecule from said human individual; and
(b) analyzing said nucleic acid molecule to detect a genetic polymorphism in the human neuropeptide Y gene at a position defined as position 1128 in Figure 7.

2. The method according to claim 1 wherein the said polymorphism results in the substitution of leucine by proline at residue 7 in the signal peptide part of pre-pro-neuropeptide Y.

3. The method according to claim 1 or 2 wherein predisposition for obesity is determined as a genetic susceptibility for increased body-mass index.

4. A method for diagnosis of one or more single nucleotide polymorphisms in the neuropeptide Y gene in a human individual, comprising determining the sequence of the nucleic acid of the said human individual at one or more positions as defined in Figure 7, said positions selected from:
–602;
–399;
–84;
1008;
1057; and
8402.

5. The method according to claim 4 for use in assessing the predisposition of an individual to a medical condition mediated by neuropeptide Y.

6. The method according to claim 5 wherein said medical condition is obesity.

7. The method according to claim 6 wherein obesity is determined by an increased body-mass index.

8. The method according to any one of claims 4 to 6 wherein the said polymorphism is in position – 602, –399, or –84 in the promoter region of the human neuropeptide Y gene.

9. A nucleic acid molecule comprising at least 10 contiguous nucleotides of the sequence shown in Figure 7, having
T at position –602;
T at position –399;
C at position –84;
T at position 1008;
G at position 1057; and/or
G at position 8402.